U.S. National Stage of PCT/EP2003/013842

Amendments to the Specification:

On page 1, prior to the first paragraph which begins on line 4, please insert the following:

FIELD OF THE INVENTION

On page 1, prior to the second paragraph which begins on line 13, please insert the following:

BACKGROUND OF THE INVENTION

Please replace the paragraph which begins on page 1, line 13, and ends on line 31, with the following rewritten paragraph:

Known from German Patentschrift Patent DE 196 21 449 is a device with which a vibratory fill-level limit switch can be operated. The limit switch includes a vibration resonator, which is connected in the feedback branch of a self-excitable transducer system with amplifying arrangement. In such case, a piezo-element is provided in the vibration resonator, both for exciting oscillation and for oscillation detection. The exciter signal of the amplifying arrangement, with which signal the piezo-element is excited to oscillate, involves periodic, rectangular signals. During the edges of the exciter signal, the piezo-element undergoes charge reversal, and this leads to charge-reversal signals in the response signal. The circuit presented in the Patentschrift has the task of removing these charge-reversal signals and of minimizing the duration of the charge-reversal process. For this task of signal removal, a control circuit is presented, which is controlled by the exciter signal and which decouples the output of the piezo-element from the amplifier arrangement. The minimizing of the duration of the charge-reversal process is achieved by a charging current control circuit, which produces a virtual reference. Both circuits contain, among other things, operational amplifiers and a semiconductor switch. Disadvantageous in this device is that the aforementioned components are relatively expensive.

U.S. National Stage of PCT/EP2003/013842

On page 2, prior to the paragraph which begins on line 2, please insert the following:

SUMMARY OF THE INVENTION

Please replace the paragraph which begins on page 2, line 15 and ends on line 26, with the following rewritten paragraph:

An idea of the invention is to short-circuit the piezodrive to ground via the peak compensation unit during the edges of the exciter signal, i.e. during the times when the interference signals are being caused. In this way, on the one hand, the response signal does not get to the feedback electronics during these the time of these edges, so that the charge-reversal signals are effectively removed. On the other hand, the total resistance, with which the piezodrive forms an RC-member, is minimized. This has also the advantage that the charge-reversal time of the piezodrive is minimized. The total resistance is composed, especially, of a resistance, which will be explained below (current-to-voltage converter) and of additional, internal resistances of the circuit, which can be necessary, for example, for reasons of explosion protection.

On page 8, prior to the paragraph which begins on line 8, please insert the following:

BRIEF DESCRIPTION OF THE DRAWINGS

Please replace the paragraph which begins on page 8, line 8 and ends on line 20, with the following rewritten paragraph:

The invention will now be explained in greater detail on the basis of the drawings, the figures of which show as follows:

U.S. National Stage of PCT/EP2003/013842

- Fig. 1 is a block diagram of the vibration resonator;
- Fig. 2 is a block diagram of the first embodiment of the device of the invention for operating the oscillatable unit of the vibration resonator;
- Fig. 3 is a block diagram of a further development of the device;
- Fig. 4 plots of signals with respect to time; and
- Fig. 5 is a block diagram of the second embodiment of the device of the invention.

On page 8, prior to the paragraph which begins on line 22, please insert the following:

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Please delete page 14 and 15 in their entirety.